

Appl. No. : 09/846777
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AMENDMENTS TO THE CLAIMS

1. (Currently amended) A cast polymer membrane mesh, the membrane mesh comprising a first surface having first surface pores, a second surface having second surface pores, and a support structure between the first surface and the second surface, the support structure having a reticular network of flow channels connecting the pores of the first surface with the pores of the second surface, wherein the pores of ~~at least~~ the first surface ~~and the second surface~~ have an average pore diameter of greater than ~~10 µm~~ about 30 µm, and wherein the pores of the second surface have an average pore diameter of greater than about 30 µm.

2. (Currently amended) The membrane of Claim 1, wherein the average pore diameter of the pores of ~~at least~~ the first surface ~~or the second surface~~ is greater than about 60 µm.

3. (Currently amended) The membrane of Claim 1, wherein the average pore diameter of the pores of ~~at least~~ the first surface ~~or the second surface~~ is from ~~greater than~~ about 50 µm to about 200 µm.

4. (Currently amended) The membrane of Claim 3, wherein the average pore diameter of the pores of ~~at least~~ the first surface ~~or the second surface~~ is from about 60 µm to about 150 µm.

5. (Currently amended) The membrane of Claim 4, wherein the average pore diameter of the pores of ~~at least~~ the first surface ~~or the second surface~~ is from about 70 µm to about 100 µm.

6. (Original) The membrane of Claim 1, wherein the membrane possesses a bubble point of less than about 1 psi.

7. (Original) The membrane of Claim 1, wherein the membrane possesses a water flow rate of greater than about 30,000 ml/min for a 90 mm diameter disc of the membrane at a pressure of 10 psi.

8. (Original) The membrane of Claim 1, wherein the membrane has a thickness greater than about 50 µm.

9. (Currently amended) The membrane of Claim 1, wherein the membrane has a thickness ranging from about 50 µm to about 500 µm.

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10. (Currently amended) The membrane of Claim 9, wherein the membrane has a thickness ranging of from about 75 μm to about 200 μm .

11. (Currently amended) The membrane of Claim 10, wherein the membrane has a thickness ranging of from about 90 μm to about 150 μm .

12. (Original) The membrane of Claim 1, wherein the polymer comprises a sulfone polymer.

13. (Original) The membrane of Claim 12, wherein the sulfone polymer is selected from the group consisting of polyethersulfone, polyarylsulfone, polysulfone, and mixtures thereof.

14. (Original) The membrane of Claim 1, wherein the polymer is selected from the group consisting of polyvinylidene fluoride, acrylic copolymer, polyolefin, polyester, polytetrafluoroethylene, polyurethane, polycarbonate, poly(tetrafluoroethylene-co-ethylene), polyamide, polystyrene, and mixtures thereof.

15. (Previously amended) The membrane of Claim 14, wherein the polyolefin is selected from the group consisting of polyethylene and polypropylene.

16. (Original) The membrane of Claim 1, further comprising a hydrophilic component.

17. (Previously amended) The membrane of Claim 16, wherein the hydrophilic component is selected from the group consisting of polyvinylpyrrolidone, polyethylene glycol, polyvinylacetate and mixtures thereof.

18. (Currently amended) The membrane of Claim 16, having a weight ratio of polymer to hydrophilic component of from about 1:20 to about 20:1.

19. (Previously amended) The membrane of Claim 18, wherein the weight ratio is from about 1:10 to about 10:1.

20-68. (Canceled)

69. (New) The membrane of Claim 1, wherein the average pore diameter of the pores of the second surface is greater than about 60 μm .

70. (New) The membrane of Claim 1, wherein the average pore diameter of the pores of the second surface is from about 50 μm to about 200 μm .

71. (New) The membrane of Claim 1, wherein the average pore diameter of the pores of the second surface is from about 60 μm to about 150 μm .

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72. (New) The membrane of Claim 1, wherein the average pore diameter of the pores of the second surface is from about 70 μm to about 100 μm .